UNIQUE IDENTIFICATION (UID)

JASCG Brief

September 2004

DoD Vision for Item Marking

To implement a policy establishing a strategic imperative for uniquely identifying tangible items relying to the maximum extent practical on international standards and commercial item markings and while not imposing unique government data requirements.

Uniquely identified (UID) tangible items will facilitate item tracking in DoD business systems and provide reliable and accurate data for management, financial, accountability and asset management purposes.

UID: Why Do It?

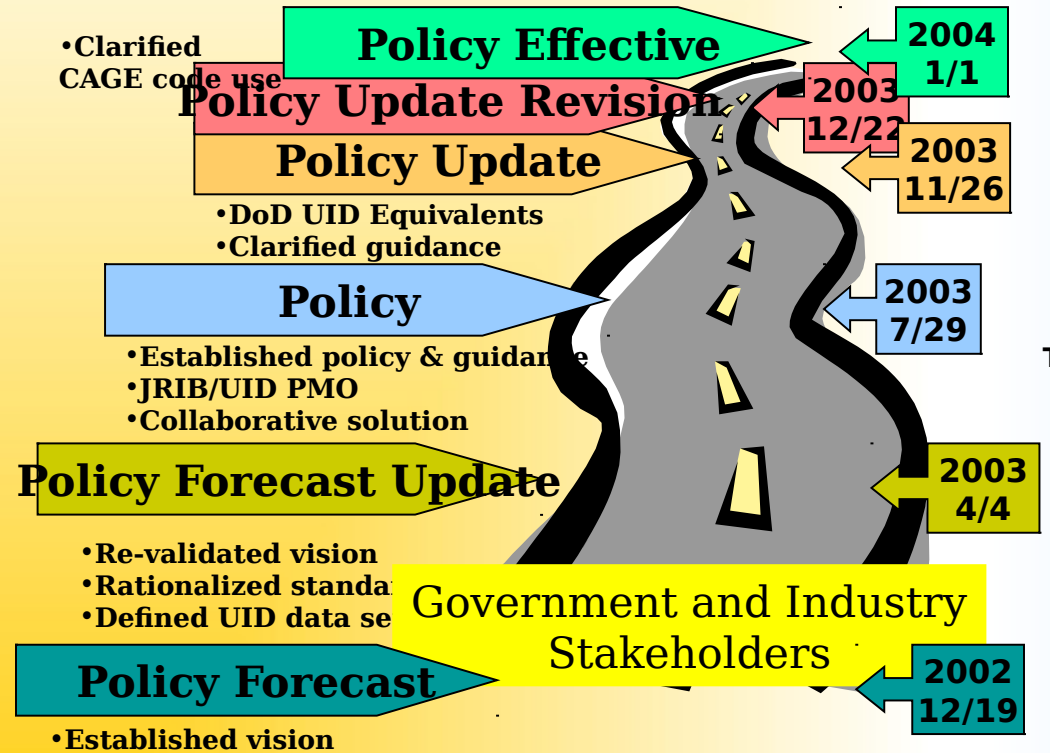
- ***To achieve a lower cost of item management as a result of being able to consistently capture the value of items purchased, control items during their use, and combat counterfeiting of parts***
- ***To improve item availability and reduce frustrated freight as a result of an increased availability of data, more efficient item management, and increased asset visibility***
- ***Capitalize on evolving best commercial practices in asset visibility/traceability***
- ***To improve long term inventory management and strategic purchasing as a result of more accurate and available data***
- ***To achieve clean audit opinions on the Property, Plant, and Equipment and Operating Materials and Supplies Portions of DoD Financial Statements***

UID OUTCOMES: Why Do It?

Acquisition	Logistics
▪Increase business intelligence ▪Enable paperless Government Furnished Property Management ▪Leverage commercial technologies and practices ▪Increase supply chain visibility ▪Create a common language of business	▪Increase systems/equipment operational availability ▪Lower costs of managing assets ▪Improve end to end asset visibility ▪Reliability and maintainability info on each item through life ▪Improve supply chain efficiency
Accounting and Finance	**Joint Forces**
▪Enable clean audit opinion ▪Reduce late interest penalties	▪Increase in-transit visibility ▪Decrease frustrated freight ▪Enable coalition support ▪Improve data quality and interoperability

What has been our plan

UID Policy



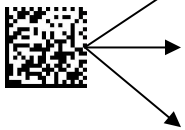
Contracting

- ☑ July 29, 2003 - DoD Policy Memorandum Issued
- August 6, 2003 - DFARS Case Opened
- ☑ October 10, 2003 – DFARS Interim Rule Issued
- ☑ November 10, 2003 – Public Comments Due
- ☑ December 30, 2003 – 2nd Interim Rule Issued
- ☑ January 1, 2004 – Effective Date
- ☑ March 1, 2004 – Public Comments Due
- ☑ The Interim Rule Adds Mandatory Requirement for -
  - ▪Contractors to provide *unique identification* for items delivered to DoD, through the use of item identification marking.
  - ▪Contracts to provide for identification of the Government's *acquisition cost* of all items built or acquired by the contractor and subsequently delivered to DoD under the contract.

UID: How is it Constructed?

The UID shall be derived from its discrete component data elements – the UID is not required to be marked on the item as a separate data element

From the Data Matrix:



Enterprise Identifier = 0CVA5 (CAGE Code)

Original Part Number = 1234

Serial Number = **674A36458**

The UID can be derived using the IAC for CAGE, which is "D":

UID Construct 1	UID Construct 2
If the Serial Number is Unique within the Enterprise Identifier	*If the Serial Number is Not Unique within the Enterprise Identifier but is Unique within the Part Number*
D0CVA5674A36458	**D0CVA51234674A36458**

UID Policy Overview

- Final UID policy released on July 29th established UID as a mandatory DoD requirement on all solicitations issued on or after January 1, 2004.
  - Policy Updates issued November 26, 2003, December 22, 2003 and September 3, 2004.
- UID is required for all property items delivered to the Government if:
  - Acquisition cost is more than $5,000
  - Item is serially managed, mission essential, or controlled inventory piece of equipment or reparable; or a consumable item or material requiring permanent identification
  - Item is a component of a delivered item and PM requires UID
  - UID or DoD-recognized equivalent is available
- Wide Area Workflow (WAWF) will be modified to capture UID and WAWF will be a mandatory payment requirement no later than January 1, 2005

UID: Database Data Transmission

The contractor is required to transmit, upon shipment notification, UID database data in addition to the data in the Data Matrix symbol and in addition to any data previously required during shipment notification

Data elements required for UID includes:

End Item Database Data (15)

- UID (Concatenated)
- Descriptive Data
  - UID Data Elements (3)
  - Issuing Agency Code
  - UID Type
  - Item Description
  - Unit of measure
- Acquisition Data
  - Contractor
  - Contract Number
  - CLIN/SLIN/ELIN
  - Price
  - Acceptance Code (identifies acceptor)
  - Acceptance Date
  - Ship to code

Embedded Items of End Items (10)

- UID (Concatenated)
- Descriptive Data
  - UID Data Elements (3)
  - Issuing Agency Code
  - UID Type
  - Item Description
  - Unit of measure
- Parent UID as of delivery date
- GFP flag

UID Policy Implementation Timeline

Policy

- UID Required for all New Solicitations - 01 January 2004
- RFID policy (ADUSD Supply Chain Integration) - 02 October 2003
  - Active RFID Use - Continue Current Use
  - Policy Kickoff IPT - October 2003
  - Final RFID Policy - July 2004
  - Passive RFID Use on Lowest Possible Piece Part/Case/Pallet - January 2005
- Final UID DFAR Case - September 2004
- Legacy UID Policy - September 2004
- UID Implementation for Contracts with Government Furnished Property - January 2005
- UID Required for all Depot Manufactured Items - January 2005

ISO/IEC 15434 Change Request

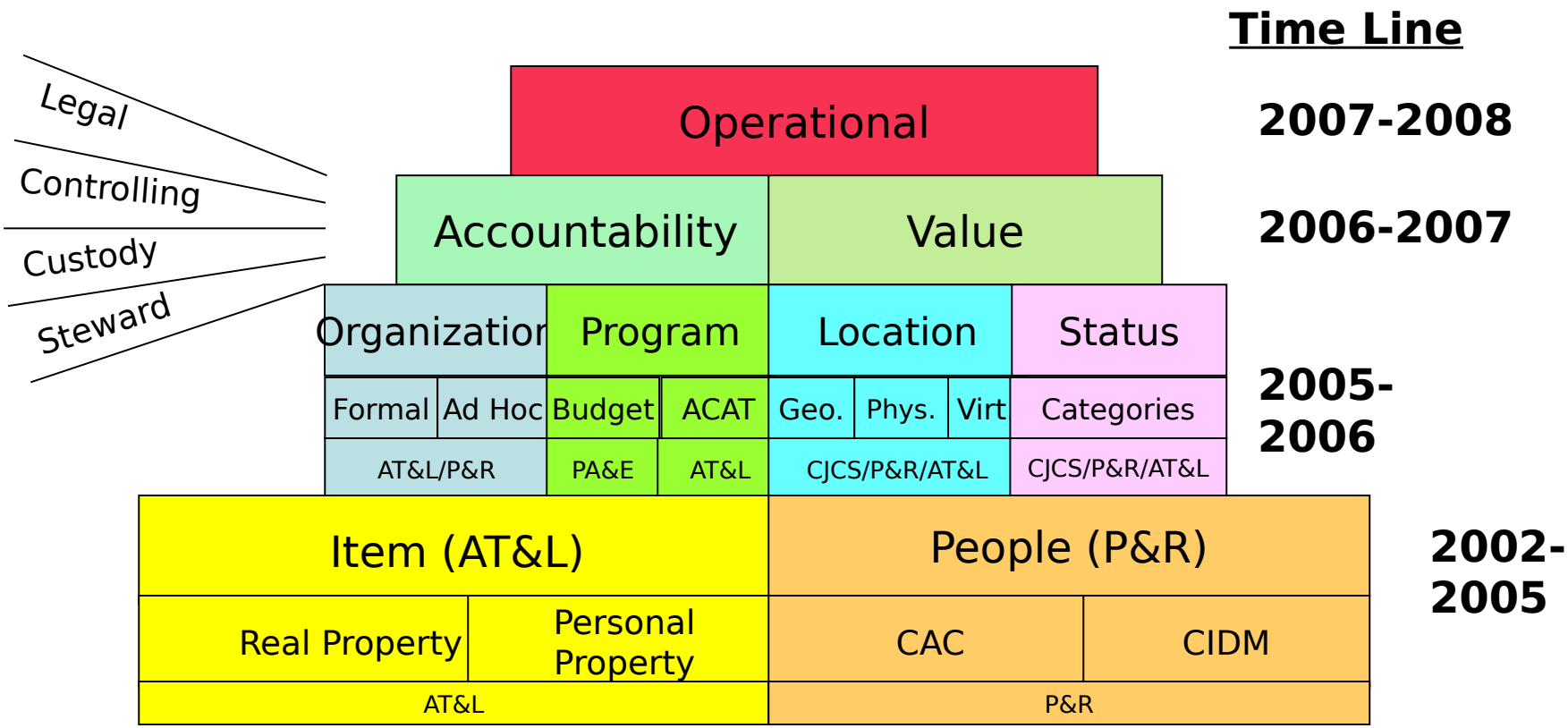
- US TAG Proposal Approved - May 2004
- Obtained support from Air Transport Association (ATA) - June 2004
- ATA/UID Guidance -Sept 2004
- ISO/IEC 15434 amendment issued - June 2005

AT&L Goals and Objectives

Objectives and Goals

- Develop a master plan and timeline integrating Real Property, UID of Tangible Items, and Property, Plant and Equipment
- Integrate the various UID efforts working with the Joint Staff, Personnel and Readiness, CIO and NII, Comptroller and Logistics and Acquisition
- Develop international support for the DoD UID solution
- Develop a legacy UID policy and integrate the maintenance objectives
- Integrate other stakeholders from OSD in UID

Data Roadmap



CAC – Common Access Card
CIDM – Collaborative IDentity Management

UID/Real Property/PP&E Integrated Plan

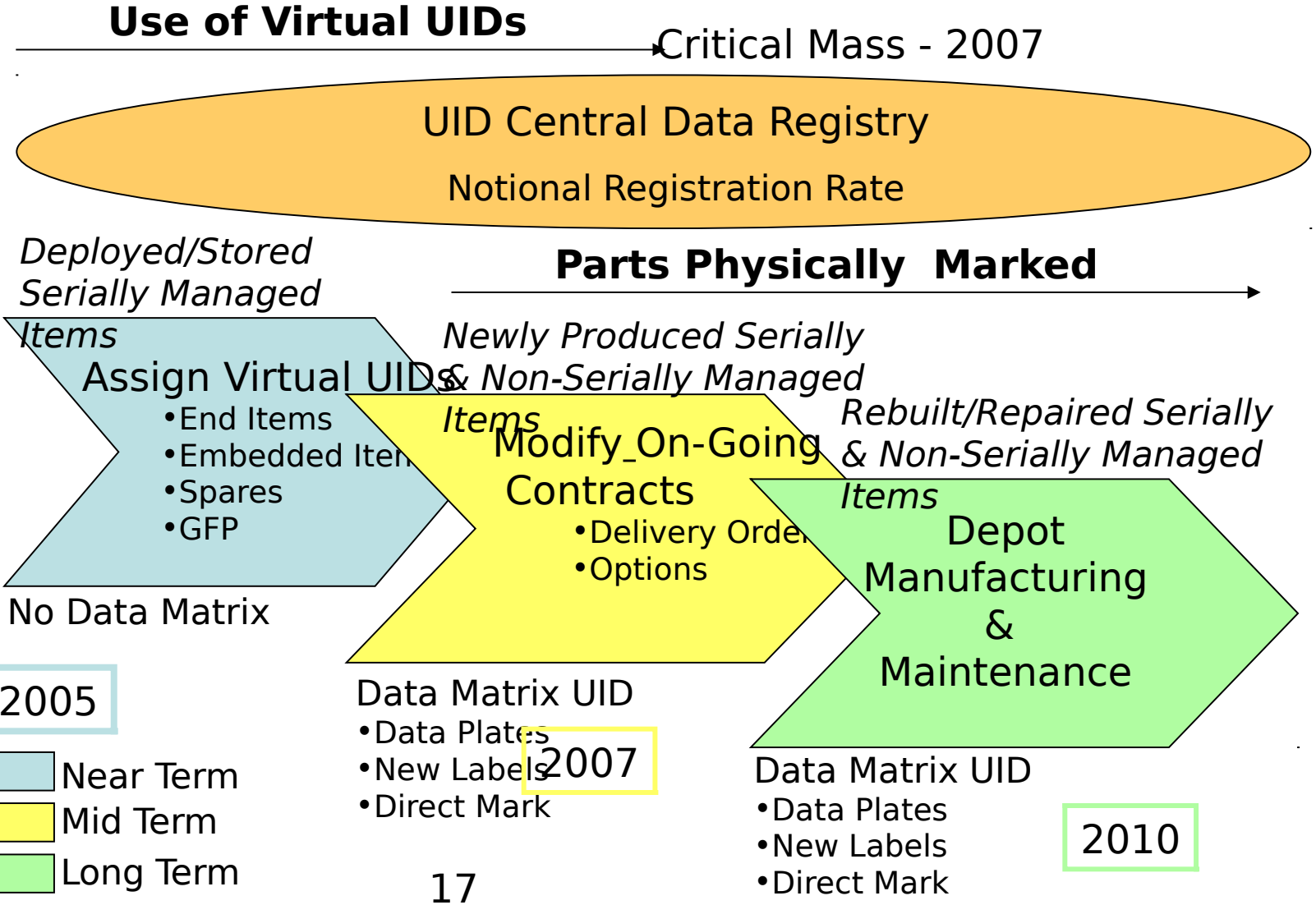
- Phase I - Initial UID Capability (target completion September, 2004)
  - Remaining Activity
  - Develop child data element
  - Develop access rules for registry, roles and responsibilities
- Phase II – Enhanced Item Intelligence (Sept. 2004 – Sept. 2005)
  - Item Description Aliasing (allow infinite aliases: catalog, NSN, description, etc.)
  - Status, with Effective Date (Fall, 2004)
  - Type of Mark (ability to add information into the database, even if 2D Data Matrix is not marked on the item)
  - Current Part Number
  - Child UID

UID/Real Property/PP&E Integrated Plan

- Phase II (cont'd)
  - Reengineer:
    - Receipt and Acceptance (internal and external)
    - Next Level of Data (Organization, Program, Location, Status)
    - Cataloging
    - Government Furnished Property On-Line System
    - Finalizing Real Property Definitions and CONOPS
    - Consider Feasibility Demonstration for Maintenance Data Integration with Registry
- Phase III (2005 – 2006)
  - Operationalizing Organization, Program, Location, Status
  - Reengineer Accountability and Value
- Phase IV (2006 – 2007)
  - Operationalize Accountability and Value

Legacy Policy

Legacy Policy Migration Strategy



Legacy Policy - “Definition of Completeness”

- A UID program should have a -
  - Process for marking instructions (process, location, method)
  - Orders or business process approach for organic operations and contractual language to support every (attrition-based) opportunity to mark sub-assemblies, components and parts not yet marked
  - Where applicable plan to utilize existing (legacy) serial number tracking programs to provide virtual UID within parent assembly
  - AIS would have UID capability, and rudimentary sorts/relational linkage

2004 Legacy Policy Requirements

- Program plans need to be complete by 2005 and must -
  - Identify scope of embedded assets
  - Address the trigger events to be used by the program
  - Forecast target level of completion by fiscal year
  - Identify expected technology for marking and reading
- Significant percentage of sub-assemblies and end items with existing data plates updated by an interim target date
- Update plan to address business processes and data integration by an interim target date
- Services and components must develop plans and address data capture strategy by specific dates
- Programs will have different levels of completion by 2010
- Identify mission-essential items first

Critical Issues

Critical Issues

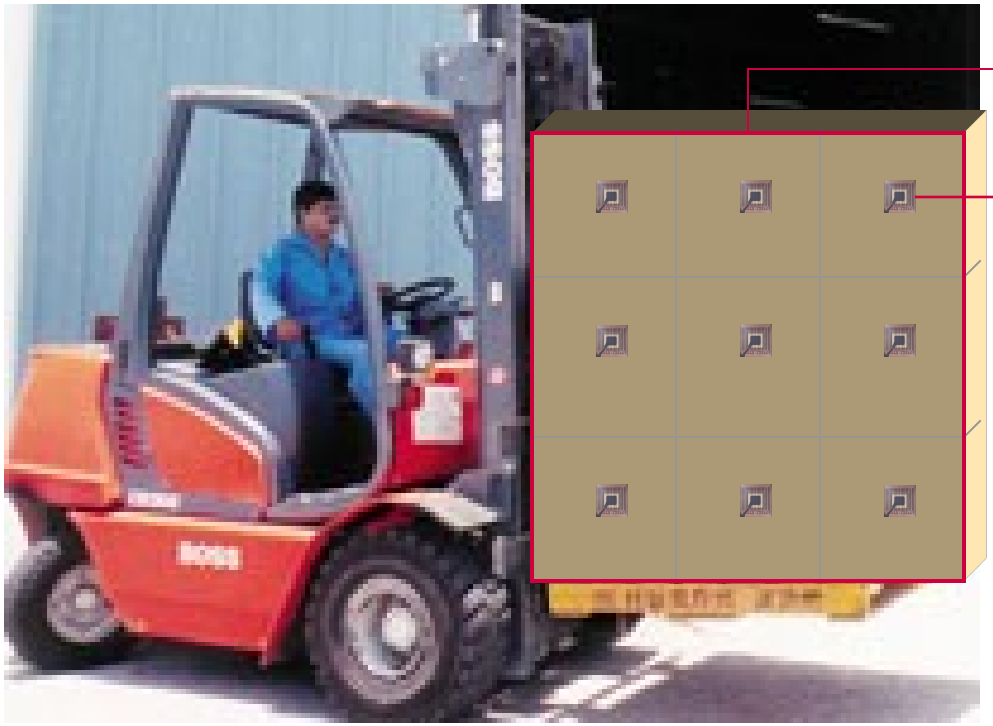
- UID Registry Concept Exploration
- Data Capture
  - Develop a strategy to build support for data capture requirements in relation to other initiatives
- Enabling an Integrated Digital Environment with Industry
  - Regarding Government Furnished Property Management
  - Regarding Legacy Data
- UID End to End Process
  - Data and Process View
  - Systems View
- Coordination of Military and Intra-DoD Emerging UID Policies
- Development of Program Strategies for Deployment to Legacy
- Outreach and Communication

Hot Re-engineering Projects

- Develop an end-to-end UID process model
- Re-engineer receipt, acceptance, and payment across DoD integrating property, logistics, contracts, financial and configuration management for UID
  - Learn from CH-47
  - Integrate with property accountability
  - Capture parent/child information
  - Integrate with Government Industry Data Exchange Process and Flight Safety Critical Aircraft Parts
  - Ensure connection to transportation and asset visibility capabilities
- Capture catalog and item designations relying on commercial capability
- Integrate with Standard Procurement System
- Develop ERP intersection criteria
  - WAWF and UID
  - Build UID into BEA assessment tool

UID-RFID Policy Relationship

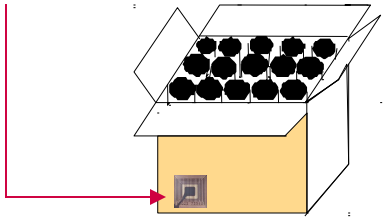
According to current DoD Policy, RFID tags that carry data are required to be attached to packages at multiple levels, including item packages, cases, and pallets. Unique Identifiers are required to be attached or directly marked on items using a data matrix to carry the UID data elements.



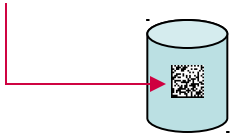
RFID Tag (Pallet Level)

RFID Tag (Case Level)

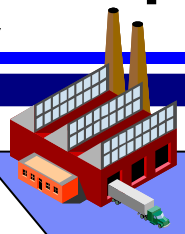
RFID Tag (Item Package Level)



UID Data Matrix (Item Level)



The DoD's Supplier Implementation Strategy



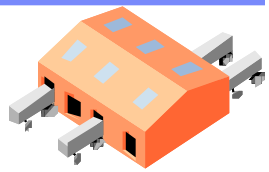
43,000 DoD Manufacturers/Suppliers

DFAR – new contracts after 1 OCT 04

Classes of Supply

Level of Tagging

Ship to Locations



January 1, 2005

Classes of Supply:

- II, VI, IX, I (PORs/MREs)

Level of Tagging:

- Shipping Containers, Palletized Unit

Loads, Exterior Containers

Ship to locations:

- San Joaquin, Susquehanna

January 1, 2006

Classes of Supply:

- Begin All Classes

Level of Tagging:

- Shipping Containers, Palletized Unit Loads, Exterior Containers

Ship to locations:

- Strategic CONUS DLA Depots, TRANSCOM Facilities & Service Maintenance Facilities

January 1, 2007

Classes of Supply:

- All Classes

Level of Tagging:

- Shipping Containers, Palletized Unit Loads, Exterior Containers, UID Item Unit Pack

Ship to locations:

- All Locations

UID-RFID Database Data Relationship

End Item Database Data (15)

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  - Issuing Agency Code
  - UID Type
  - Item Description
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Embedded Items of End Items (10)

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  - UID Data Elements (5)
  - Item Description
  - Unit of measure
- Parent UID as of delivery date
- GFP flag

RFID Data at the Pallet Level

- Pallet EPC
- Shipping Data

RFID Data at the Case Level

- Pallet EPC
- Case EPC

RFID Data at the Item Package Level

- Case EPC
- Item Package EPC

Next Steps

Build on Emerging UID Strategies

- **Corporate and Plant-wide single processes (Engine manufacturers initially)**
- Corporate top-down strategies
- Pilot programs (JDAM; CH-47)
- Program level (Blackhawk; V-22)
- Small business (Central labeling capability; marking by prime contractor or government)
- Engineering drawings best business practices
- Standard flow-down clause to suppliers
- Legacy item data integration

Roadmaps Under Construction

DoD

- Distribution Centers & Depots
- Inventory Control Points
- Components at Large
- DCMA
  - GFP
  - QA
  - Receipt & Acceptance
    - Address mid-909

Organizations

- Program Managers
- Item Managers

Roles and Resp.

Industry (Small/Medium/Large Companies)

DoD AIS Roadmaps and UID Conops

Stakeholder Guidance

- PEO/PM Awareness, Roadmap, and Implementation Guidance
- Quality Assurance Plan
- Part Marking Guidance
- Contracting/Finance
- Process Capability (Hardware/Software)
- Engineering Guidance
- Data Management
- Production Readiness

Contact Information

For further information or questions, please contact:

- Ms. LeAntha Sumpter at LeAntha.Sumpter@osd.mil or at (703) 681-7564
- Mr. Robert Leibrandt at Robert.Leibrandt@osd.mil or at (703) 695-1099

A variety of UID background materials and previous UID policy memos can be found at

www.uniqueid.org